

REMARKS**I. General**

Claims 1-48 and 50-55 are pending in the present application. The present Office Action (mailed January 25, 2007) raises the following issues:

- Claims 1-48 and 50-55 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Applicant respectfully traverses the outstanding claim rejections raised in the current Office Action, and requests reconsideration and withdrawal thereof in light of the remarks presented herein.

II. Amendments

Claims 47-48 and 50-55 are canceled without prejudice herein. As such, the rejection of those claims is now moot.

III. Rejections Under 35 U.S.C. §101

Independent claims 1, 9, 21, 29, 41, 47 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicant respectfully traverses these rejections below.

35 U.S.C. §101 provides:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Thus, 35 U.S.C. §101 defines four categories of inventions that Congress deemed to be appropriate subject matter of a patent: processes, machines, manufactures, and compositions of matter. The latter three categories define “things” or “products” while the first category defines “actions”. *See* 35 U.S.C. §100(b) (“The term ‘process’ means process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material.”).

As the Supreme Court held, Congress chose the expansive language of 35 U.S.C. §101 so as to include “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980). The Federal Circuit has embraced this perspective:

The plain and unambiguous meaning of section 101 is that any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may be patented if it meets the requirements for patentability set for in Title 35, such as those found in sections 102, 103, and 112. The use of the expansive term “any” in section 101 represents Congress’s intent not to place any restrictions on the subject matter for which a patent may be obtained beyond those specifically recited in section 101 and the other parts of Title 35 … Thus, it is improper to read into section 101 limitations as to the subject matter that may be patented where the legislative history does not indicate that Congress clearly intended such limitations. *In re Alappat*, 33 F.3d 1526, 1542, 31 USPQ2d 1545, 1556 (Fed. Cir. 1994).

Accordingly, a complete definition of the scope of 35 U.S.C. §101, reflecting Congressional intent, is that any new and useful process, machine, manufacture, or composition of matter (or any new and useful improvement thereof) under the sun that is made by man is the proper subject matter of a patent.

The subject matter courts have found to be outside of, or exceptions to, the four statutory categories of invention is limited to abstract ideas, laws of nature, and natural phenomena. These three judicial exclusions recognize that subject matter that is not a practical application or use of an idea, a law of nature, or a natural phenomena is not patentable. See, e.g., *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U.S. 86, 94, 40 USPQ 199, 202 (1939) (“While a scientific truth, or the mathematical expression of it, is not patentable invention, a novel and useful structure created with the aid of knowledge of scientific truth may be.”). The courts have held that a claim may not preempt ideas, laws of nature, or natural phenomena. Accordingly, one may not patent every “substantial practical application” of an idea, law of nature, or natural phenomena because such a patent “in practical effect be a patent on the [idea, law of nature or natural phenomena] itself.” *Gottschalk v. Benson*, 409 U.S. 63, 71-72, 175 USPQ 673, 676 (1972).

Thus, the USPTO guidelines recommend that patent personnel follow the following procedure when evaluating a claim to determine whether it is directed to statutory subject

matter (*see e.g.*, United States Patent and Trademark Office OG Notices: 22 November 2005, *Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility*):

A. Patent personnel should first determine whether the claim falls within at least one of the four enumerated categories.

B. If the claim falls within at least one of the four enumerated categories, the inquiry does not end, but rather patent personnel should determine whether the claim covers a judicial exception, as being directed to an abstract idea, law of nature, or natural phenomena.

C. If determined that the claim is directed to an abstract idea, law of nature, or natural phenomena, patent personnel should go on to determine whether the claim is directed to a practical application thereof. The claim is determined to be directed to a practical application if: a) the claimed invention “transforms” an article or physical object to a different state or thing, or b) the claimed invention otherwise produces a useful, concrete, and tangible result.

Accordingly, claims that are directed to one of the four statutory categories and which do not fall under a judicial exception (i.e., are not an abstract idea, law of nature, or natural phenomena), are proper under 35 U.S.C. §101. Also, claims directed to one of the four statutory categories which do fall under a judicial exception and are directed to a practical application (e.g., produce a useful, concrete, and tangible result) are also proper under 35 U.S.C. §101.

As discussed below, the claims of the present application are directed to one of the four statutory categories expressly recognized by section 101. Further, the Office Action fails to establish that the claims are directed to a judicial exception to the recognized categories. Additionally, even if one or more of the claims are directed to a judicial exception, the claims do not preempt such judicial exception but are instead directed to a practical application thereof.

Claim 1

Claims 1 is directed to a “method” (i.e., to a “text-generation method”), and thus falls within one of the four statutory categories of section 101. The Office Action fails to establish that claim 1 is directed to a section 101 judicial exception (i.e., an abstract idea, law of nature, or natural phenomena). The USPTO guidelines explain that if an Examiner determines that the claimed invention preempts a section 101 judicial exception, “the Examiner must identify the abstraction, law of nature, or natural phenomenon and explain why the claim covers every substantial practical application thereof.” The Office Action fails to identify any such abstraction, law of nature, or natural phenomenon.

The Office Action appears to conclude that claim 1 is not limited to a practical application of a judicial exception without first identifying any judicial exception to which the claim is directed. That is, the Office Action fails to identify any abstraction, law of nature, or natural phenomenon that the claim covers. Thus, Applicant respectfully submits that the Office Action fails to establish a *prima facie* case for rejecting claim 1 under 35 U.S.C. §101.

Further, as discussed below, claim 1 does not preempt an abstract idea, law of nature, or natural phenomena, but rather, to the extent that it is directed to any such judicial exception, it is directed to a practical application thereof. For instance, independent claim 1 recites, in part “generating, for application in efficiently searching for desired ones of said data records, a text-string for each data record” (emphasis added). Thus, claim 1, as amended herein, expressly recites a practical application of generating a text-string, i.e., for application in efficiently searching for desired ones of said data records.

Further, claim 1 does produce a useful, concrete, and tangible result in that it expressly recites “generating, ..., a text-string for each data record.” Such generating produces a useful, concrete, and tangible result (i.e., the recited text-string).

On pages 3-4, the Office Action appears to raise various questions concerning what happens after a search is conducted. However, such questions need not be answered in the claims in order for them to be directed to statutory subject matter under 35 U.S.C. §101. As discussed above, the generation of a text-string for application in efficiently searching for

desired ones of data records provides a useful, concrete, and tangible result (i.e., the generated text-string), and a further result of any use of the generated text-string need not be further recited in order to be proper under 35 U.S.C. §101. Otherwise, one could unendingly ask for a further application (or result) of the recited result of a given claim. For instance, if claim 1 were amended to further recite retrieval of a data record (as mentioned on page 3 of the Office Action), one could then ask what is the further result (or application) of such retrieved data record. Similarly, if claim 1 were further amended to recite that such a retrieved record were displayed on a display, one could then ask what is the further result (or application) of such displaying of the data record. Again, no such further application or result is required in order for the claim to be directed to statutory subject matter under 35 U.S.C. §101.

Additionally, page 4 of the Office Action asserts that “At best, the claims are descriptive of the internal components of a data record.” Page 4 of the Office Action goes on to assert that the recited “field descriptor” and “value descriptor” are only descriptive of the internal storage fields that exist within a data record and do not produce a useful, concrete, and tangible result. However, as mentioned above, claim 1 recites generating a text-string for each data record. Claim 1 further recites that “each text-string includes one or more text-based data descriptors, such that each data descriptor includes: a field descriptor ... and a value descriptor”. Thus, claim 1 clearly recites that the field descriptor and value descriptor are included as part of the generated text-string. As discussed above, the generated text-string provides a useful, concrete, and tangible result, and the recited “field descriptor” and “value descriptor” further clarify what is included in the generated text-string.

In view of the above, even if claim 1 is directed to an abstract idea, law of nature, or natural phenomena (again, the Office Action fails to identify any such judicial exception), claim 1 does not preempt all applications of such generating a text-string but instead is expressly directed to generating such a text-string “for application in efficiently searching for desired ones of said data records”. Further, claim 1 produces a useful, concrete, and tangible result (i.e., the generated text-string).

If the claim is directed to a practical application of the judicial exception (i.e., abstract idea, law of nature, or natural phenomena) producing a result that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S.C. §101. As

described above, claim 1 is directed to a practical application, and thus the rejection under 35 U.S.C. §101 should be withdrawn.

Claim 9

Independent claim 9 recites:

A search method comprising:

defining a first target value for each of one or more data fields within a database record structure of a database, wherein the database includes a plurality of data records;

searching a plurality of text-strings, wherein each text string is associated with one of the data records and includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the data record to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field; and

generating a first result set by identifying one or more text-strings that include a value descriptor that is essentially equivalent to at least one of the first target values.

Thus, like claim 1, claim 9 is directed to a “method” (i.e., to a “search method”), and thus falls within one of the four statutory categories of section 101. The Office Action fails to establish that claim 9 is directed to a section 101 judicial exception (i.e., an abstract idea, law of nature, or natural phenomena). The USPTO guidelines explain that if an Examiner determines that the claimed invention preempts a section 101 judicial exception, “the Examiner must identify the abstraction, law of nature, or natural phenomenon and explain why the claim covers every substantial practical application thereof.” The Office Action fails to identify any such abstraction, law of nature, or natural phenomenon.

The Office Action appears to conclude that claim 9 is not limited to a practical application of a judicial exception without first identifying any judicial exception to which the claim is directed. That is, the Office Action fails to identify any abstraction, law of nature, or natural phenomenon that claim 9 preempts. Thus, Applicant respectfully submits that the Office Action fails to establish a *prima facie* case for rejecting the claim 9 under 35 U.S.C. §101.

Further, claim 9 does not preempt an abstract idea, law of nature, or natural phenomena, but rather, to the extent that the claim is directed to any such judicial exception, it is directed to a practical application thereof. That is, claim 9 produces a concrete, tangible, and useful result. For instance, independent claim 9 recites, in part “generating a first result set”. Thus, claim 9 expressly recites generating a first result set. Such a first result set provides a concrete, tangible, and useful result.

In addressing whether a claim is directed to a practical application M.P.E.P. §2106 provides the following example:

For example, a computer process that simply calculates a mathematical algorithm that models noise is nonstatutory. However, a claimed process for digitally filtering noise employing the mathematical algorithm is statutory.

Analogously, if claim 9 were directed merely to mathematical algorithms used for comparing text strings (e.g., boolean operations, such as AND, OR, etc.) so as to preempt such mathematical algorithms it might be nonstatutory, but in the present case claim 9 is not directed to the underlying mathematical algorithms employed. Instead, claim 9 expressly recites “generating a first result set”. Thus, while the first result set may be generated through the use of underlying mathematical algorithms employed by the computer, claim 9 does not preempt all applications of any given mathematical algorithm, but instead is directed to a practical application in that it recites “generating a first result set”, thereby producing a tangible, concrete, and useful result.

As mentioned above with claim 1, the Office Action appears to question what happens after a search is conducted. However, such question need not be answered in claim 9 in order for it to be directed to statutory subject matter under 35 U.S.C. §101. As discussed above, the generation of a first result set provides a useful, concrete, and tangible result (i.e., the generated first result set), and a further result of any use of the generated first result set need not be further recited in order to be proper under 35 U.S.C. §101. Otherwise, as discussed above with claim 1, one could unendingly ask for a further application (or result) of the recited result of a given claim.

In view of the above, the rejection of claim 9 under 35 U.S.C. §101 should be withdrawn.

Claim 21

The Office Action further rejects claim 21. Independent claim 21 recites:

A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the processor, cause that processor to:

receive data records, wherein each data record includes one or more data fields and a field value associated with each data field; and

process the received data records to generate, for application in efficiently searching for desired ones of said data records, a text-string for each data record, wherein each text-string includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the data record to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field.

M.P.E.P. §2106 explains that “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.” This is clearly the case for claim 21 as the functional code for receiving data records and processing the received data records to generate a text-string are stored to a computer-readable medium. Thus, claim 21 is directed to proper statutory subject matter under 35 U.S.C. §101.

Further, the Office Action has failed to identify any abstract idea, law of nature, or natural phenomenon that claim 21 is believed to be directed. Further, claim 21 is directed to the practical application of generating a text-string for each data record in that it expressly recites “for application in efficiently searching for desired ones of said data records”.

In view of the above, the rejection of claim 21 under 35 U.S.C. §101 should be withdrawn.

Independent Claim 29

The Office Action likewise rejects claim 29. Independent claim 29 recites:

A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the

processor, cause that processor to:

define a first target value for each of one or more data fields within a database record structure of a database, wherein the database includes a plurality of data records;

search a plurality of text-strings, wherein each text string is associated with one of the data records and includes one or more text-based data descriptors, such that each data descriptor includes:

a field descriptor that defines a specific data field within the data record to which the text-string is related, and

a value descriptor that defines the field value associated with the specific data field; and

generating a first result set by identifying one or more text-strings that include a value descriptor that is essentially equivalent to at least one of the first target values.

As discussed above with claim 21, M.P.E.P. §2106 explains that “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.” This is clearly the case for claim 29 as the functional code for defining a first target value, searching a plurality of text-strings, and generating a first result set are stored to a computer-readable medium. Thus, claim 29 is directed to proper statutory subject matter under 35 U.S.C. §101.

Further, the Office Action has failed to identify any abstract idea, law of nature, or natural phenomenon that claim 29 is believed to be directed. Further, claim 29 is directed to the practical application of generating a first result set.

In view of the above, the rejection of claim 29 under 35 U.S.C. §101 should be withdrawn.

Claim 41

Claim 41 is directed to a “system” (i.e., a “searching system”), and thus falls within one of the four statutory categories of section 101 (e.g., “machine”). The Office Action fails to establish that the claim is directed to a section 101 judicial exception (i.e., an abstract idea, law of nature, or natural phenomena). The USPTO guidelines explain that if an Examiner determines that the claimed invention preempts a section 101 judicial exception, “the Examiner must identify the abstraction, law of nature, or natural phenomenon and explain

why the claim covers every substantial practical application thereof.” The Office Action fails to identify any such abstraction, law of nature, or natural phenomenon.

The Office Action appears to conclude that the claim is not limited to a practical application of a judicial exception without first identifying any judicial exception to which the claim is directed. That is, the Office Action fails to identify any abstraction, law of nature, or natural phenomenon that the claim covers. Thus, Applicant respectfully submits that the Office Action fails to establish a *prima facie* case for rejecting claim 41 under 35 U.S.C. §101.

Further, as discussed below, claim 41 is not directed to an abstract idea, law of nature, or natural phenomena. For instance, independent claim 41 recites:

A searching system comprising:
a server system including a computer processor and associated memory, the server system having a database that includes a plurality of data records;
wherein the server system is configured to:
define a first target value for each of one or more data fields within a database record structure of the database;
search a plurality of text-strings, wherein each text string is associated with one of the data records and includes one or more text-based data descriptors, such that each data descriptor includes:
a field descriptor that defines a specific data field within the data record to which the text-string is related, and
a value descriptor that defines the field value associated with the specific data field; and
generate a first result set by identifying one or more text-strings that include a value descriptor that is essentially equivalent to at least one of the first target values.

Thus, claim 41 is directed to a system that comprises the various recited elements, such as a server system that includes a computer processor and associated memory. It is unclear what abstraction, law of nature, or natural phenomenon the Examiner believes is encompassed by such system (again, the Office Action fails to identify any such abstraction, law of nature, or natural phenomenon).

In view of the above, the rejection of claim 41 under 35 U.S.C. §101 should be withdrawn.

IV. Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

The required fee for this response is enclosed. If any additional fee is due, please charge Deposit Account No. 50-3948, under Order No. 66729/P029US/10613663 from which the undersigned is authorized to draw.

Dated: April 25, 2007

Respectfully submitted,

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4).

Dated: April 25, 2007

Signature: 
(Donna Forbit)

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